Chapter I.

FORMATION OF THE ROCKY MOUNTAIN RANGE OF NORTH AND SOUTH AMERICA.

There was a time when the Rocky Mountains formed part of the ocean-bottom. Sufficient proof of this fact is found in the presence of oyster-shells and of other maritime life in the mountains and on the mountain-sides of the whole range.

The coal beds of the Rocky Mountain Range, which were once swamps and bogs, for the most part no longer retain a horizontal position. Jammed in between layers of rock they are now found in every conceivable position, from horizontal to perpendicular. Occasionally they are found even in a completely inverted position, that is to say, the older coal-formation is on top and the younger rock-formation is at the bottom.

Four million years ago the greater part of the whole Rocky Mountain Range, including the continent we call the New World, was beneath the surface of the ocean. We base this calculation on the fact that it required about four million years for our rivers to wash into the ocean the material that once filled their present beds. Take, for example, the Red Deer River of Canada. Every second it carries about five pounds of mineral matter